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Title: **Psychology Masters students' perceptions of developing identities as researchers.**

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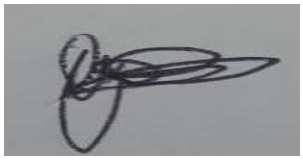
Declaration

I, Grant Sobotker, hereby declare that the thesis entitled, Psychology Masters students' perceptions of developing identities as researchers, is my own work. It has not been submitted before for examination in fulfilment of degree requirements at any university. All sources used and citations were indicated and acknowledged as complete references.



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Abstract

Research training is attracting more inspection as research itself is viewed as having greater importance in the global knowledge economy. Students in the social sciences particularly struggle with the research component of their degrees. The development of an identity as a researcher has been under-researched whilst the development of other professional identities and competencies, e.g. as clinical practitioners, was prioritized. Research looked at students' understanding of and attitudes towards research however, the extent to which students in professional programmes identify as researchers has not been explored. The extent to which students and graduates develop an identity as researchers that enables them to engage in psychological research and to become productive in a knowledge economy has not been examined systematically. This exploratory study was framed within phenomenography. The study was conducted in the Psychology department of the University of the Western Cape. Semi-structured interviews were conducted with six psychology Master's students. Participants were recruited from the structured research psychology master's programme by means of purposive sampling. Transcripts were analysed using Phenomenographic analysis. Data collection and analysis occurred simultaneously. A focus on trustworthiness, credibility and reflexivity was maintained throughout the process. Ethics clearance was given by the Senate Research Committee. Permission to conduct the study at the identified university was given by the Registrar. Participation was voluntary and all ethics considerations were adhered to throughout the study. The study found that most participants did not have an explicit understanding of researcher identity. Participants were able to identify patterned ways of understanding research and linked their researcher identity to their technical research skills. Participants also related their identity to more latent aspects, such as research interests or the role research played in their lives.

CHAPTER ONE

INTRODUCTION

1.1. Background to the Study

Research in South Africa plays an important role in generating the knowledge required to enhance skills development and service delivery among the country's workforce in order to enable economic development and growth (Sipengane, 2014). The concern is that research capacity in South Africa is too small when compared with our comparator countries such as, Turkey, Greece, Portugal, Mexico and Egypt (Mouton, 2019). Research capacity is measured as the number of full-time equivalent (FTE) researchers per thousand of the workforce and specifically does not include postgraduate students (Dell, 2019). While South Africa saw a significant increase in Masters and Doctoral graduates between 2010 and 2016, with Doctoral graduates more than doubling, the country saw a steady decline in full-time equivalent researchers over that same period (Mouton, 2019). According to the National Development Plan for 2030, the development of research capacity in Historically Black Universities was severely limited during Apartheid and the distribution of research capacity in higher education institutions remains skewed in favour of Historically White Institutions (National Planning Commission, 2011). The fact that historically disadvantaged institutions are still impacted by apartheid policies, even years after apartheid, is not a new idea and has been echoed by various researchers over the years (Pillay, Ahmed & Bawa, 2013; Pillay & Siyothula, 2008, Roberts et al., 2016). Having fewer staff members with advanced degrees has been identified as a possible constraint in developing research capacity in historically disadvantaged universities (Frantz et al., 2014). Additionally, the composition of staff within higher education institutes remains racially skewed,

with the majority of senior academic staff members at universities still being white males (DHET, 2017). The Council on Higher Education (2015) noted that most of South Africa's research output comes from only a few higher education institutions. Universities receive funding based on their research output (Badat, 2010). This means that universities with lower research capacity struggle to develop in this area. This continues to disproportionately affect historically disadvantaged universities in terms of available resources, as well as staff recruitment (Roberts et al., 2016).

The National Development Plan for 2030 also acknowledged the shortage of academics and posited that there needs to be a drastic increase in academic and public sector research personnel if the country wishes to compete in the global knowledge economy (National Planning Commission, 2011). Currently, the increase in Masters and PhD graduates is not translating into an increase in FET researchers (Dell, 2019). The National Development Plan for 2030 noted a high level of unemployment among higher education graduates and speculated that this unemployment, in the context of the current skills shortage, may be an indication that universities are not producing graduates who meet the needs of society (National Planning Commission, 2011). This sentiment is echoed by the Cape Higher Education Consortium (CHEC) who stated that the high levels of unemployment among higher education graduates may be an indication that education, as it currently stands, is not an adequate solution to unemployment (CHEC, 2013). One reason for this may be that there is sometimes a disconnect between qualification and skill, wherein graduates earn the qualification without acquiring all skills attributed to the qualification (Green & McIntosh, 2007). In line with this, Boulos (2016) found that qualification-related career development was slow to materialize for PhD graduates, because employers were more interested in skills gained than in the qualification itself. In terms

of the development of research skills within professional Master's programmes, there has been some debate regarding the relevance of a thesis component and the early 2000s saw the beginning of a shift in some programmes emphasizing the use of research in professional practice and deemphasizing the thesis (Smith, Erkel & Stroud, 2002). Drennan and Clarke (2009) found that the mini-thesis in professional Masters programmes lead to positive learning outcomes for students which would not have been achievable by teaching theory alone. Specifically, students in this study commented that the majority of research skills they gained came from the practical aspects of the thesis process, such as gaining access to data collection sites, interacting with participants, and dealing with issues during data analysis. The development of these skills made it more likely that they would engage in future research endeavours (Drennan & Clarke, 2009).

Redden (2020) found that approximately 33 percent of university graduates, across disciplines, are working outside their field of study. The National Research Foundation (NRF) stated that it is important to be able to trace graduates and equally as important to guide them in the right direction so that they do not end up working outside their field of study (Prins, 2017). Looking specifically at graduates from professional master's programmes in Psychology, a tracer study found that three to eight years after graduation, less than 50 percent of Research Masters graduates registered in their category with the HPCSA (Senekal & Smith, 2021). HPCSA registration is not a requirement for working as a researcher in South Africa. Therefore, this finding does not necessarily mean that the rest were working outside of their field. However, the same study also found that while 100 percent of clinical Master's graduates self-reported to be working in their field, the same only applied to 75 percent of research Masters graduates (Senekal, 2018). Similarly, Stenard (2016) found that approximately 30 percent of Masters and

PhD graduates were employed outside of their field or in jobs only somewhat related to their field. This author also found that graduates employed outside of their field of study were significantly less likely to engage in research (Stenard, 2016). Toledo-Peraya (2012) found that graduates who identified as researchers were more likely to engage with research as a part of their careers and also exhibited better research capacity including increased technical skill, critical review skills, sustained engagement in research, ability to conceptualize research and appropriate dissemination skills. Given the identified need for increased research capacity in South Africa and the potential link between researcher identity and engagement with research, it would be beneficial to better understand how students registered in a professional research Master's programme identify and think about themselves in terms of research.

1.2. Problem Statement

Almost 50 percent of professors and associate professors are due to retire in the next decade and there are not currently enough existing academics and postgraduates to replace them (DHET, 2017). The number of full-time equivalent researchers declined at a steady pace between 2010 and 2016 and it is the first time in over a decade that this has happened (Dell, 2019). Additionally, when compared to other African countries, South Africa ranks third, behind Tunisia and Egypt, in terms of the number of Doctorates per million of the population which is making is difficult for South Africa to compete globally (Mouton et al., 2019). There is an increasing demand for university as well as non-university, public sector research professionals in South Africa that is not currently being met (DHET, 2017). This remains the case despite the doubling of PhD graduates over the last decade (Dell, 2019). Some literature showed that the disconnect between the number of graduates and the number of employed professionals may be because postgraduate programs are not providing graduates with the adequate and relevant skills

of the qualification (Boulos, 2016; Green & McIntosh, 2007; National Planning Commission, 2011). Other literature however indicated that programmes in the Humanities and Social Sciences do help graduates to develop the skills required for the workforce, but that graduates from these programmes struggle to recognize the less concrete skills gained during the programme and to link these skills to a career (Fain, 2019). There appears to be a lack of research regarding reasons behind the disconnect between the number of graduates versus the number of professional researchers. Researcher identity is also a particular area of this discussion that has been under-researched.

1.3. Rationale of the Study

The National Development Plan for 2030 put forth two goals for building research capacity. The first is that universities need to increase the percentage of PhD qualified staff from 34 percent to 75 percent by 2030 (National Planning Commission, 2011, p. 319). The second is that universities need to develop the capacity for research training that is cutting edge and "nurture and coordinate research capacity in higher education and link it to postgraduate studies (National Planning Commission, 2011, p. 327). Research showed that the majority of students who enter PhD programs have the requisite academic ability (Patterson, 2016). This suggests that there are reasons other than academic ability which are contributing to the high rate of incompletion. Literature reported that dropping out can be attributed to financial or personal issues (Rae, 2015), research anxiety (Gredig 2018; Kakupa, 2019) or lack of support from family, peers (El-Ghoroury et al., 2012) or supervisors (Farkas, 2018). Wingfield (2019) added that success in a PhD program may be linked to the student's motivation for embarking on the PhD and that being passionate about research as well as, having a realistic understanding of the process are vital to success at this level. The PhD process has been described as going far beyond

discipline-specific knowledge and skills to involve an entire reorienting of the personal and intellectual perspective of the student (Batty, Owens, Brien & Ellison, 2020). This suggests that having a better understanding of how candidates in a professional Master's programme view themselves in relation to research, may be beneficial in terms of understanding the career paths that these graduates choose to take after the programme as well as, the extent to which they decide to engage with research as part of their careers. This study aimed to explore the extent to which students registered in a professional Research Master's programme identified as researchers, with the belief that the findings from this study could contribute to an increased understanding of how research capacity in graduates from professional research psychology programmes can be developed that in turn would contribute to the development of the research and development work force as articulated in the NDP2030.

1.4 Research Question

What are the experiences of developing a researcher identity among students in a professional Research Psychology Masters programme?

1.5 Aim of the study

The aim of the present study was to explore the subjective experiences of students in a professional Masters programme in research psychology developing an identity as a researcher.

1.6 Objectives of the study

1.6.1 To explore the perceptions of Master's students about developing a researcher identity as a learning outcome

1.6.2 To explore whether there are patterned ways that students understand researcher identity.

1.6.3 To identify barriers and facilitators of developing an identity as a researcher at a/ in the

- Structural level i.e. Programme structure
- Supervisory experiences
- Individual or personal level

1.7. Theoretical Framework

The present study adopted Phenomenography as the theoretical framework. Phenomenography is a relatively new approach, with the first publications appearing in Sweden in the late 1970's (Svensson & Saljo, 1977). The ontological and epistemological assumptions, as well as the methodological requirements of the approach, were more clearly defined almost two decades later (Bowden & Walsh, 1994; Marton & Booth, 1997). The broad aim of a phenomenographic study is discovering different ways of experiencing a phenomenon (Marton & Booth, 1997). Phenomenography is focused on exploring ways of seeing, knowing about, and having skills related to a particular phenomenon (Walker, 1998). In other words, its aim is to discover the different ways in which people experience, conceptualize, realize and understand various aspects of the world around them. Specifically, phenomenography was developed with the purpose of investigating variation in student learning outcomes (Yates, Partridge & Bates, 2012). Phenomenography is one of the few theories to have been created within the context of higher education (Tight, 2014). The creation of phenomenography is largely attributed to Marton's studies of first-year undergraduate learning outcomes in the 1970s and was motivated by a desire to understand academic learning better (Marton, 2000).

The researcher chooses to study how people experience a given phenomenon, rather than the phenomenon itself (Booth, 1997; Marton, 1986). The aim is, however, not to find an

individual ‘essence’ as with phenomenology, but rather the variation in experience of different aspects that define the phenomenon (Walker, 1998).

As mentioned before, the aim of the current study was to explore students’ experiences of developing a researcher identity. Phenomenography allowed for an exploration of the variation in students’ experiences of developing a researcher identity during the Master’s programme. In terms of experiences of the programme, it enabled the identification of variation in students’ understandings of learning outcomes of the programme as well as students’ perceptions of their achievement of learning outcomes. It also allowed for the exploration of variations in students’ understanding of what research identity is and which aspects of the program facilitated the development of this identity. Knowledge of what facilitates the development of research identity can be used to improve student experiences, particularly in a professional programme which develops registered researchers.

Ontology. Phenomenography takes a non-dualist, second order approach. A non-dualist approach as described by Saljo (1997) is “a position where the internal (thinking) and the external (the world out there) are not posited as isolated entities” (p. 173). In other words, meaning stems from the relationship between an individual and a phenomenon. An individual’s experience of a phenomenon is then the internal relationship between that individual and the phenomenon in question.

Marton (2000) argued that from a non-dualist perspective, there are not two worlds; a real, objective world and a subjective world of mental representation. There is only one world, an existing world, which is experienced and understood in different ways by different people. It is simultaneously objective and subjective. An experience is a relationship between object and subject.

Epistemology. Marton (2000) highlights three key tenets of phenomenography. These are 1) variation, 2) awareness and 4) structural relationships (Marton, 1981; Marton, 2000). These are discussed below.

Variation. Phenomenographic research aims to explore the range of meanings within a group, as opposed to the range of meaning for each individual (Akerlind, 2005). For the current study, this means that no interview script can be understood without the others. Each interview must be interpreted in the context of all transcripts as a whole, by looking for similarities and differences. The prime interest of phenomenographic research lies in identifying and describing the variation between the conceptions as distinctly different categories that, when taken as a whole, capture the essence of a phenomenon (Limberg, 2008; Marton & Booth, 1997).

Awareness. Within the Phenomenographic framework, a core belief is that an individual can have varying ways of experiencing the world; this is termed 'awareness' (Marton, 2000). Within this approach, attention is directed towards questions about learning from a second order perspective, in which the experience of a phenomenon, as described by the participant, forms the basis of a researcher's description of the different ways that people conceive a given phenomenon (Trigwell, 2006). The focus of the researcher should be the participant's perception of the phenomenon, their ideas about the world they live in and the way in which they understand, interpret, and conceptualize the situation under investigation (Rands, 2016). Marton and Booth (1997) stated that if the aim of Phenomenographic research is to capture the object of experience or phenomenon, this cannot be separated from the way it is experienced. Essentially, the Phenomenographic approach asks, "What is a way of experiencing a phenomenon?" (Rands, 2016, p. 10). This question is explored through a framework of awareness (Limberg, 2008). The methods in a phenomenological framework therefore focus on uncovering these varying ways of

experiencing through questions which encourage the participant to reflect on their conceptual understanding of a phenomenon (Rands, 2016). Throughout a study, participants are encouraged to reflect on their own lived experience of the given phenomenon (Entwistle, 1997).

Structural relationships. One of the epistemological assumptions of phenomenography is the assumption of structural relationships between different ways of experiencing (Yates, Paltridge & Bates, 2012). This assumption suggests that all ways of experiencing are representative of a relationship between an "experiencer" and the phenomenon being experienced. This leads to the expectation that all of the different ways of experiencing will be logically related through the common phenomenon being experienced (Akerlind, 2005). The descriptions gathered by the researcher are seen as the 'outcome space' (Tight, 2014). Ideally, the outcome space represents the full range of experiences of the phenomenon, for that particular population at that point in time (Akerlind, 2005).

Meaning and structure are intertwined in any experience (Walker, 1998). Regarding structure, the experience of a phenomenon can be broken up into an internal and external horizon (Tight, 2014). The internal horizon refers to all the parts that make up a phenomenon while the external horizon refers to the relationship of these "parts" to everything around it (i.e. the context in which it is occurring) (Tight, 2014). "Conceptions" are the unit of analysis within phenomenography. Conceptions are used to refer to the different ways people experience a specific aspect of reality. Conceptions are not visible but rather tacit, implicit and assumed. Therefore, conceptions are typically represented in the form of categories of description. Categories of description are thought of as denoting conceptions. For any given phenomenon of interest, there are only a limited number of ways of perceiving, understanding or experiencing it. These can be identified on the basis of a relatively small number of interviews (<20). A detailed

description of how the theory was applied in the current study is provided in Chapter Three, the Methodology section.

1.7. Structure of the Thesis.

The current study was conducted in fulfilment of the degree requirements for a masters by thesis i.e. a full Master's thesis was produced as an outcome. The learning outcomes was demonstration of mastery of the ability to conceptualise, execute and write up a research study. The referencing system used is APA sixth edition. This thesis is comprised of five chapters. Chapter One is an introductory chapter which serves to provide some background on the study topic and highlight the problem and rationale. It also provides the aims and objectives of the study and a description of the chosen theoretical framework. Chapter Two is a review of literature pertaining to the topic. That chapter provides an overview of the current research in this field and also identifies the gaps that the current study aimed to address. Chapter Three is a detailed description of the methods used in this study. That chapter provides a detailed explanation of all methodological steps that were used in the current study and provides the rationale behind all choices that were made. Chapter Four presents the results from the current study. The results are presented in what is termed the "outcome space". This terminology comes from the theoretical framework, which is further explained in chapter three. The findings are presented by means of categories and themes and each theme consists of direct quotes from participants as well as interpretation from the researcher. Chapter Five is a discussion of the results that were presented in the preceding chapter as well as, a conclusion. This chapter unpacks the results in relation to the literature and provides a discussion of the extent to which the current study managed to address the stated objectives. This chapter also provides an

executive summary of the findings, the significance of the study, the limitations of the study and recommendations for future research.

CHAPTER TWO

LITERATURE REVIEW

This section examines the literature to gain an awareness of the current understanding of what researcher identity encompasses. It also looks at the higher education context, specifically the landscape of psychology in South Africa, including the current registration categories. It then looks specifically at professional programmes and learning outcomes. Finally, there is a discussion of the transition from postgraduate student to professional. The overarching aim of this chapter was to provide an overview of the body of literature reporting on research training in professional psychology degree programmes

2.1. Researcher Identity

Castello et al. (2015) recognised that there is very little literature focusing on the development of an identity as a researcher. Professionals who identify as researchers exhibit research capacity including technical skill, critical review skills, sustained engagement in research, ability to conceptualize research and appropriate dissemination skills (Toledo-Pereyra, 2012). Literature notes that learning and identity development are closely connected (Baker & Lattuca, 2010; Barnacle & Mewburn, 2010; Janke & Colbeck, 2008).

Researcher identity development can be conceptualised as "a dynamic and social process that develops through participation in different disciplinary and academic communities" (Castello et al., 2015 p. 37). It is therefore important to examine how personal factors, discipline and degree programmes in psychology, as well as institutional culture could influence the development of an identity as a researcher.

Culture and identity are interconnected; as students interact with others and engage in tasks within a specific academic and disciplinary culture, they begin to develop roles and

identities within that culture (Gazley, 2014). Academia represents a site of many intersecting cultures (Holley, 2011). Postgraduate students have to "negotiate contexts that include the institution, their specific college, their department, their discipline, their supervisor's perspective on the discipline, and various contexts that exist within individual departments" (Foot et al, 2014, p.104).

Kamler and Thompson (2014) argue that it is through academic writing at a postgraduate level that research identity develops. As students receive feedback on everything from conventions of academic writing, to knowledge specific to their discipline, as well as how to formulate their findings, not only do they develop their writing, they also make decisions about how they want to shape their identity as researchers (Inouye & McAlpine 2019).

The literature has neglected the development of an identity as a researcher whilst prioritizing a more practical focus on obstacles to completion. Formation of identity during postgraduate study is often the result of various moments of crisis or dissonance, which call for students to change and grow (Jarvis-Selinger, Pratt and Regehr, 2012). Postgraduate students are required to not only acquire and produce knowledge, but also establish a sense of their identity within their chosen profession (Frick, 2011). Blitzer, Albertyn, Frick, Grant and Kelly (2014) posit that academic identity formation is informed partly by personal identity (who we are and where we are from), but that postgraduate students generally view their personal identity as being far removed from their researcher identity.

Jarvis et al (2012) explained that identity formation is a constant interplay between individual reflexivity and socio-cultural influence. Filipovic and Jovanic (2016) found that this is due to a process of deciding which authors to cite and with which methodologies and theories to align yourself; all of which reflect who they wish to be as researchers.

2.2. Landscape of Psychology in South Africa

In South Africa, as an area of university study, psychology is one of the most popular courses in which students enroll (Louw, 2002; Painter, Terre Blanche, & Henderson, 2006). All 26 universities in the country offer Psychology courses at a postgraduate level (Rascher, 2016). Twenty-three of those universities offer programmes that are accredited by the Health Professions Council of South Africa (HPCSA, 2020). Research Psychology is one of the less common categories of Psychology and is only offered by eight higher education institutions across South Africa (Flynn, Dladla & Erasmus, 2019). Of those eight, six are accredited by the HPCSA (HPCSA, 2020). Laher (2005) found that many research psychology graduates felt that theirs was a category which was sidelined in South Africa and that this could be evidenced by the fact that HPCSA documentation pays less attention to research psychology as compared to the other categories. The HPCSA offers minimum guidelines for the training of psychologists in all categories of registration, aside from research psychology (www.hpcsa.co.za). In fact, the HPCSA only provides two documents specific to the category of research psychology. The first is form 107 – "information for institutions wishing to apply for recognition for training of intern research psychologists" and the second is form 227 – criteria for registration as a professional research psychologist for persons who did not complete an internship" (HPCSA, 2016). It is unclear what the minimum training requirements are for research psychology students at a Master's level, but based on the available research, generally the course content of a such a programme would include the philosophical underpinnings of research; qualitative, quantitative and experimental research methods; data collection techniques and research proposal writing (Derman, 2002; Flynn et al., 2019; Rascher, 2016). With regard to the scope of a research psychologist in South Africa, Laher (2005) posited that the role of a research psychologist should

include developing new theories, evaluating existing theories and practices, improving the quality of research output, and should also include the supervision and training of student and intern research psychologists. Long and Flynn (2018) mentioned essentially the same scope, but include that it is important that the theories and interventions that are developed by research psychologists in South Africa, be relevant as well as culturally sensitive to the context. Mayekiso et al., (2004) also noted the importance of having psychologists in all categories available that understand the linguistic and cultural diversity of South Africa.

In order to register as a research psychologist with the HPCSA, an accredited research psychology Master's degree must be completed, and an internship must be completed at an accredited site and the board exam must be passed (www.hpcsa.co.za). However, unlike the other categories (i.e. clinical, counselling, psychometry, industrial and educational psychology), registration with the HPCSA is not a pre-requisite to practice in the field of research psychology (Kuther & Morgan, 2012). In fact, many research psychology Master's graduates choose not to register (Laher, 2005; Senekal & Smith, 2021). Flynn et al. (2019) posited that there are two identities that research psychology graduates can adopt; 1) a psychologist with an interest in research and 2) a researcher with an interest in psychology. They propose that registration may depend on the chosen identity and that it may be more important for members of the former category to register with the HPCSA. In line with this, many employers of research psychology graduates state that they are less interested in registration and more interested in graduate attributes (Potgieter & Coetzee, 2013). While employers required the hard skills such as discipline-specific knowledge and technical skills, what they deemed the most important graduate attributes were soft skills such as desire and ability to learn, problem solving ability, adaptability to the workplace culture and the ability to relate to colleagues and clients (Potgieter

& Coetzee, 2013; Robles, 2012; Stasz, 2001; Winberg, 2006). Employers consider the type of qualification as well as the institution attended to be good indicators of whether a graduate is likely to possess these required skills and attributes (Archer & Chetty, 2013). Cai (2012) posited that employers of research psychology graduates expect higher education institutions to prepare students for employment after graduation, thereby connecting the perceived credibility of the qualification to the perceived credibility of the institution. What this means then, is that the onus is on the Master's programmes to adequately prepare students for employment. However, the academic understanding of research does not adequately prepare students to be researchers (Bell & Clancy, 2012; Morgenshtem, Freymond, Agyapong, & Greeson, 2011). Developing a researcher identity is an important aspect of this preparation (Pennington et al, 2017). Bates (2017) adds to this that success as a researcher depends largely on the extent to which students view themselves as being part of the profession. In light of this, it is necessary that further research be done to look at the current training in research psychology Master's programmes and the understanding that students within these programs have of developing a researcher identity.

2.3. Transitioning from Postgraduate Student to Professional

Postgraduate students experience a number of identity transitions as they study, first becoming a postgraduate student, then an emerging scholar, and finally moving toward becoming a professional in the chosen field (Foot, Crowe, Tollafield & Allen, 2014). An important factor in transitioning from postgraduate student to professional, is collegial relationships with faculty. Bates, McCann and Harland (2017) found that collegial relationships with staff played two important roles. The first was providing a comfortable space to speak through the work, which facilitated both completion and academic growth. The second was

seeing lecturers as role models for the profession and using that as a goal to move towards. Literature also shows that postgraduate students feel a particular sense of agency when working closely with faculty, for example when they are able to make meaningful contributions in meetings, take part in research with faculty, or even express their potential desire for future academic roles, it helps them to develop a sense of belonging (McAlpine & Amundsen, 2009).

In terms of working with faculty, supervision has consistently been identified as an integral part of the success of postgraduate study as well as identifying as part of the research community (Conrad 2003; Dysthe, Samara and Westheim 2006; Tobbell & O'Donnell, 2013). Madikizela-Madiya, Gobe and Nkamule (2016) argued for the efficacy of supervision, not only in building the competencies required to complete postgraduate level theses, but for other academic roles as well. However, little has been documented about postgraduate students' experiences regarding the guidance they receive from experienced academics in writing for publication, among other activities, in order to be recognised members of the research community (Wood & Louw, 2018). The importance of student–teacher collaboration within higher education has gained more attention over recent years (Bovill 2013). As supervision is central to the development of a new professional identity and although it should not merely serve a psychotherapeutic function to the student (Madiya et al., 2016), the ongoing exploration of this practice is of utmost importance. The question arises to what extent and for what reasons students identify and value supervision as a significant contributor to their professional developmental journey.

Since the late 1990s, understanding of postgraduate study has moved from a purely skills-based approach, focusing on acquisition of linguistic and technical skills (e.g. Lea & Street, 1998), to a view of postgraduate study as a contextually situated practice involving constant

interaction between the students social and cultural history, course content, and professionals within the discipline (e.g., Filipovic & Jovanic, 2016; Kamler & Thomson, 2014). Literature identifies that learning outcomes for Master's level students include Knowledge and Understanding, Ability to apply knowledge and understanding, Making judgements, Self-directed or autonomous learning, and communication (Inouye & McAlpine, 2019). Lave and Wenger (1991) posit that central to acquiring any learning outcomes, is participation. Handley et al. (2007) define participation as a construct that involves understanding, taking part in and subscribing to the values and practices of a community. This means that if a student does not subscribe to, or understand the values of a community then learning outcomes cannot be achieved. Postgraduate students require a variety of academic experiences before they can be recognised as researchers (Baker & Lattuca, 2010). However, there is a gap in the literature in terms of the extent to which students identify as researchers and the influence this has on achieving learning outcomes of a Master's programme and completing thesis requirements.

2.4. Professional Programmes

The scientist-practitioner model is used in the training of psychology students internationally and in South Africa (Roberts et al., 2016; Skourteli & Apostolopoulou, 2015). The scientist-practitioner model is the dominant mode of training for postgraduate psychology while institutions may differ in their particular theoretical orientation (Pillay, Ahmed & Bawa, 2013). The core emphasis of the scientist-practitioner model is that training be equally weighted between "science and practice" (Pachana, Sofronoff, Scott & Helmes, 2011 p.67). As such, this training style aims to prepare students to be productive researchers and competent practitioners.

It is important not only for their own research, but also for them to understand the research process well enough to differentiate between reliable and unreliable evidence garnered

from research (Stoltenberg & Pace, 2007). There have been some calls to move away from the scientist-practitioner model (Pachana et al., 2011). It is, however, worth noting that Stoltenberg and Pace (2007) have shown that the scientific aspect of training is fundamentally important to the appropriate application of relevant research. Research remains an important aspect of training in psychology, for clinical practice and naturally for academic endeavour as well.

Psychologists or psychology students who have not developed competency in scientific research methods are at risk of being able to "only accept or dismiss evidence from empirical studies based on their limited ability to analyse the research process and the generalizability of the results to their own context" (Stoltenberg & Pace, 2007, p. 18). Anderson (2005) did an experiment that illustrates the difficulty of abstracting practical learning. In the experiment children learned to do maths by selling goods, these children could not complete similar mathematical problems within a laboratory context (Anderson, 2005). In the same way, what clinicians learn through reading or in practice does not help them to generalise information so that it is applicable across contexts (Stoltenberg & Pace, 2007). The literature has mostly engaged with the theoretical aspects of models as it pertains to the development of clinical competencies (Ready & Veague, 2014; Fuqua & Newman, 2002; DiLillo & McChargue, 2007). To a lesser extent, models such as the Boulder or scientist-practitioner model has not been critically interrogated for its applicability in the local context (Maree, 2015). Thus, there has been less engagement and research into the impact of training models on the development of an identity as a researcher and productive engagement in research post graduation.

Psychology Master's degrees are considered to be professional programmes. Professional programmes focus on educating students for admission to a specific profession. Within these professions individuals have to adhere to ethical standards, possess special knowledge and skills

in a widely recognized body of learning derived from research, education and training at a high level. Professionals trained in professional programmes then apply this knowledge and exercise these skills in the interest of others (Klafter & Kauv, 2015).

Klafter and Kauv (2015) noted that completing professional programmes often lead to licensure with a particular regulatory body. Master's degrees in psychology are prerequisites for registration as psychologists with the Health Professions Council of South Africa (HPCSA, 2015). Completion of professional programmes that can lead to registration for psychologists is critical, given the shortage of psychologists in South Africa in general (Roberts et al., 2016) and black psychologists in particular (Pillay & Siyothula, 2008).

Clinical psychologists, as well counselling psychologists, educational psychologists, neuro-psychologists and industrial psychologists, have a specific scopes of practice that also includes research competencies (www.hpcsa.co.za). However, research psychologists are defined by their research competencies (Flynn & Long, 2018). This implies that they should identify as researchers upon graduation. The existing literature on research psychology graduates has focused mainly on employability of graduates and the role of research psychology in the employment market (Flynn et al., 2019; Rascher, 2016; Senekal, 2018). A consistent finding is that there is a misalignment between the graduate attributes and skills that universities aim to produce and the skills and attributes that employers look for in graduates (Cheong et al. 2016; Collet, Hine & Du Plessis 2015). Specifically, higher education institutions tend to focus on developing discipline related knowledge and understanding, academic competencies and technical skills (Derman, 2002; Laher, 2005; Long & Flynn, 2018; Moleke, 2003; Rascher, 2016). While employers do find these skills to be necessary for employment, many employers also look for soft skills and sometimes find these to be lacking in graduates (Cai, 2012; Flynn et

al., 2019). Stasz (2001) defines soft skills as "refer[ing] to an individual's character or personality shown within the workplace. These skills can denote traits such as personal motivation" (p. 386). Bridgestock (2009) found that professional Master's programs tended to look to the internship year to provide opportunities for the development of soft skills. Archer and Chetty (2013) had similar findings and suggested that universities adopt a more structured and intentional approach to help research psychology students acquire soft skills during their Masters year. While there is a fair amount of literature examining the employability of research psychology graduates as well as the necessity for soft skills in the workplace, there is a need to look at the role of researcher identity in this. Currently there is no agreed upon definition of researcher identity. The manner in which research psychology Master's students understand the term has not been sufficiently explored in the available literature. The current study aimed to fill a gap in the body of literature by looking at the extent to which research psychology students identify as researchers as well as what it is that they understand by the concept.

CHAPTER THREE

METHODOLOGY

3.1 Aim of the study

The aim of the proposed study was to explore the subjective experience of developing an identity as a researcher through Master's level studies in Psychology.

3.2 Objectives of the study

3.2.1 To explore the perceptions of Master's students about developing a researcher identity as a learning outcome

3.2.2 To explore whether there are patterned ways that students understand researcher identity.

3.2.3 To identify barriers and facilitators of developing an identity as a researcher at a

- Structural level i.e. Programme structure
- Supervisory experiences
- Individual or personal level

3.3 Research Setting

This study was conducted at the University of the Western Cape (UWC), located in Cape Town. UWC has contributed substantively to higher education in the course of its 60 year history. The university seeks to make academia accessible and equitable, offering in excess of 200 degree, diploma and certificate programmes. Initially, UWC was formed by the ruling National Party at the height of apartheid and was only open to coloured students. Embedded

within the context of racial segregation, the university has always identified with the anti-apartheid struggle and the role it played in the fight for democracy (www.uwc.ac.za).

The University has always highlighted the role of academia in rebuilding a diverse nation characterised by increased accessibility and equality (UWC Prospectus, 2020). Today, UWC is recognised for the active and diverse student body. Over the last decade the university has transitioned from a teaching institution toward being a research-intensive institution (Pillay & Siyothula, 2008). Being recognised as a research-intensive institution has encouraged staff to be more involved in research, in addition to greater Masters and Doctorate enrolments (UWC Research Policy, 2009).

At UWC the majority of students come from poor and educationally disadvantaged backgrounds (Bunting, 2006). In 2002, the HSRC student retention and graduate destination study noted that UWC had the second-highest proportion of non-completer respondents in the low socioeconomic status community (Breier, 2010).

The research setting for the study was the psychology department at a historically disadvantaged university. The identified university is transitioning toward becoming a research intensive university, while at the same time being a historically disadvantaged university, having to deal with the challenges that represent (Pillay & Siyothula, 2008). The current study aimed to explore the experiences of the students at this university in terms of their perceptions of developing a researcher identity. The university offers a professional programme in research psychology. The structured research psychology Master's programme consists of coursework that is weighted 50% and a mini-thesis that is weighted 50%. The programme leads to registration with the HPCSA as a research psychologist subject to completion of an internship

and a board examination. Data collection for the study took place either at the university or at a location chosen by the participants.

3.4 Design

The study was conducted using exploratory research. Exploratory research often focus on uncovering attitudes, perceptions or experiences of a particular phenomenon (Dawson, 2006). The aim of the current study was to gain participants' perceptions of the process of developing an identity as a researcher, making this design appropriate. Exploratory designs can also be helpful as a basis for study on a subject about which little has been written (Singh, 2007). As the literature has shown, there is very little research on the development of a researcher identity among Master's students, or postgraduate students in general (Castello et al., 2015; Lopes & Lourenco, 2019). Exploratory designs generally favour qualitative methods (Babbie, 2016), making an exploratory design most relevant for this study as it allowed the participants to speak openly of their experiences of developing a researcher identity and also allowed them to unpack their understanding of the concept of researcher identity. Using an exploratory design created the possibility for a wide range of findings and allowed for a change in direction as the data collection dictated (Sandhursen, 2000). This is in line with the tenets of Phenomenography which calls for the identification of all of the differences in participants' experiences (Han, 2019). This design allowed the researcher to gain an understanding of what researcher identity means to Masters research students, how they understand the concept, as well as how they view themselves in relation to the concept.

3.5 Target group

The target group was Research Psychology Masters students registered in the psychology department at the identified university. The current study only included students registered for the structured research program. The rationale for this choice is that the structured research programme is a professional programme, which can lead to registration with the HPCSA as a research psychologist. As this programme theoretically leads to a career in research, the current study aimed to explore these students' understandings of the concept of a researcher identity.

Data collection took place over two years. As the population group was quite small, collecting data over two years allowed for the inclusion of two cohorts. Students in their first year of enrolment in 2016 and 2017 were considered for inclusion. This meant that students were completing the coursework component of their degree. The average intake of Masters Research Psychology students is 8-12 students per annum (Dr. M. Smith, Personal communication, April 26, 2016). In both 2016 and 2017, there were eight students enrolled in their first year. The cohorts from which the participants were selected therefore consisted of 16 students.

3.6 Sample

Purposive sampling was used in the study. Purposive sampling is primarily used in qualitative research and focuses on the selection of participants who will provide the most information, for the most effective use of limited resources (Patton, 2002). This is achieved by identifying and selecting participants who are particularly knowledgeable about or experienced with the phenomenon of interest (Cresswell & Plano Clark, 2011). Purposive sampling is used to make sure that individuals from a particular group are included in the final sample (Robinson, 2014). This type of sampling is useful when a particular group has specific insight that can be helpful in the understanding of the research topic (Robinson, 2014).

For phenomenographic analysis, the goal is to uncover variation in the participants' responses, therefore it is essential that the interviews reveal a range of perspectives on the phenomenon (Bowden, 2000). However, there is no agreed upon ideal sample size for phenomenographic studies (Trem, 2017). While there is no agreed upon number of participants, it is suggested that the researcher keep in mind that participants should be selected in such a way as to obtain as much variation in experience as possible (Mann, 2009). All 16 students were invited to participate in the study by email. Initially seven students responded, however one withdrew for personal reasons. For the current study, six participants were recruited. Three participants were from the 2016 cohort and three from the 2017 cohort. During the time when participants were being recruited and subsequently interviewed protests related to the Fees Must Fall movement were ongoing. The protests may have impacted the recruitment of participants.

3.7 Data Collection

Semi-structured interviews were used to gather data. The semi-structured interview incorporates predetermined questions, but the interview can change direction based on the participant's responses to the given questions (Whitling, 2007). This allowed the researcher to gain insight into all factors whilst encouraging participants to respond freely. Allowing the participant to respond openly during interviews contributed to the depth of the data that was collected, in turn allowing for more meaningful data analysis. Semi-structured interviews are a preferred data collection method for exploratory studies (Byrne, Brugha, Clark, Lavelle & McGarvey, 2015). Byrne et al. (2015) noted that semi-structured interviews give researchers access to information that would be difficult or impossible to acquire by other means. Semi-structured interviews are the most frequently used data collection method in phenomenographic studies and are generally conducted with a set of pre-defined interview questions as well as the

information emerging from participants' responses (Stenfors-Hayes et al., 2013). The interviews were conducted by the researcher at secure locations negotiated with the participants. An interview schedule was created in collaboration with the supervisor of this research. The questions were developed based on a review of the literature and with the research setting in mind. An interview schedule consisting of open-ended questions was used to guide the interview (Appendix A). A pilot interview was conducted to test the interview questions. After conducting the pilot interview, the recording was listened to by the researcher and supervisor and it was decided that the interview schedule was adequate for use in the study. The data from the pilot interview was included for data analysis. Interviews were conducted in English, which is also the medium of instruction for this course. While English was not the first language of most of the participants, the language used in the interviews was informal. Questions were also included at the end of the interview to allow the participants to reflect on the interview and the share any information not elicited in the interview that they deemed pertinent. Where questions were unclear, participants were able to ask for clarity before responding. Interviews lasted between 45-60 minutes and were audio-recorded, and transcribed by the researcher. Transcription was conducted by the researcher to allow for greater immersion in the data. The process of transcribing also allowed the researcher to reflect on the tone of the interviews. The transcriptions were checked against the original recordings by a second researcher.

3.8 Data Analysis

The data was analysed using Phenomenographic analysis. There is more than one accepted method of Phenomenographic analysis (Ashworth & Lucas, 2000). This study made use of the four steps of analysis as outlined by Saljo (1997). These steps are familiarization,

identification, sorting, and contrasting and categorizing. An explanation as to how these four steps were used in the study is provided below.

Familiarization. Phenomenographic data analysis begins with reading and re-reading the transcripts of the interviews in order for the researcher to gain a good overall picture of the responses as well as an idea of the extent of variation and similarities (Han & Ellis, 2019). For the current study, familiarization was aided by the fact that I had conducted the interviews and transcribed the interviews myself. As such, prior to starting with data analysis, I was exposed to the data and was somewhat familiar with it. For this stage of the analysis, I read through the transcripts once purely for overall understanding of the responses. During the first reading, no notes were taken, I simply read through the transcripts one after the other. After reading all of the transcripts once, I made a note of anything that stood out, such as any particularly striking statements or potential patterns. The transcripts were then read for a second time. This time, I made notes in the margins while reading. The notes included any thoughts that came to mind, reflections, and preliminary codes. Further reading of the transcripts were also done in other steps.

Identification. During this stage, data which is relevant to the topic of the study are identified in the transcripts and aggregated by compiling a list of each participant's responses for every interview question (Marton et al., 1992). This involves reading through each transcript again in order to identify the parts of each participant's response that answers the question (Rands, 2016). For the current study, I read through the transcripts and for each question I highlighted the part of the participant's response that I felt answered the question. I then copied each participant's answer onto a single document. This document contained the interview questions. Under each interview question, I inserted the responses from all six participants. This

is done because the aim of phenomenographic analysis is to present the variation that exists within the collective, rather than individual views (Walker, 1998). I then read through all the responses together and checked them against the original transcripts. After this stage, a second researcher read through the aggregated transcript and compared it to the original interview recordings as well as the original transcripts to help ensure that the aggregated transcript was an accurate representation of the original interviews.

Sorting. The data identified during the previous stage is now sorted into what is termed 'pools of meaning' or preliminary categories (Marton et al., 1992). During this stage, the aim of the researcher is to identify similarities and differences in the statements and then group similar statements together to form initial categories (Saljo, 1997). For this stage, I read through the aggregated transcript and used different colour highlighters to indicate the themes that each phrase or sentence spoke to. I also made comments in the margins and assigned each sentence a code. The codes were not pre-existing, but driven by the data. Once all of the data had been assigned a code, I then grouped all codes together to form five 'pools of meaning'/ preliminary categories. At this stage, the categories were not named. A second researcher then read through the five categories and compared them with the original interview transcripts. No new categories were added, but the second researcher indicated the feeling that some categories overlapped in content. This was then addressed in the next stage of analysis.

Contrasting and Categorizing. During this stage, the initial categories or 'pools of meaning' are contrasted with each other and categories are labelled and clearly defined (Marton et al., 1992). Han and Ellis (2019) posit three points to consider when creating categories. First, each category should be distinctly different from other categories. Second, there should be as few categories as possible and third, the logical relations amongst the categories should be clearly

specified. Rands (2016) stipulated that once the categories have been established, the original transcripts should be read again in order to compare the content of the categories with that of the transcripts. Similarly, Walsh and Downes (2006) stated that the categories should continuously be tested against the data in a rigorous cycle of analysis until the final categories are determined.

Initially, there were five categories. After discussion with the second researcher and having compared the categories with the data again myself, an agreement was reached that some of the categories overlapped. One of the requirements of phenomenographic analysis is that the final categories be distinctly different and represent the variation in participant responses (Akerlind, 2005). Therefore category 5 was dissolved and integrated into category 4, and categories 1 and 2 were merged. That left a total of 3 final categories which were distinctly different and logically related and all sought to answer the proposed research question.

3.9 Trustworthiness

Trustworthiness is established through credibility, transferability and dependability (Silverman, 2011). Trustworthiness increases methodological rigour and enhances the credibility of the study. For this study, credibility was pursued by means of triangulation of analysis. This is achieved when a second researcher analyzes the data and the resulting categories are compared and contrasted with those of the original analyst (Babbie, 2016). For the current study, I used the suggestion of Bowden (2000) who suggests that the original researcher drafts categories based on the aggregated transcripts. A second analyst then reads all of the transcripts individually and assigns the data to those draft categories, or creates new categories if it is deemed necessary. Once the categories were agreed upon they were refined. The process is therefore sequential and not simultaneous. The second analyst was a Master's graduate and a lecturer on research methodology and statistics. We then compared the allocations to the categories and discussed it

in an iterative process, reworking the draft categories until a final group of categories were mutually agreed upon.

Dependability of this study was facilitated through a detailed description of all research practices followed and of other researchers who assisted with aspects of the research as recommended by Morrow (2005). Transferability was facilitated through a thick description of phenomenon in sufficient detail so that one can begin to evaluate the extent to which the conclusions drawn are transferable to other times, settings, situations, and people (Creswell, 2011). This was accomplished by providing descriptions of contextual information, such as the nature of the university, the program for which the participants were enrolled. The results section also includes relevant demographic and contextual information about the participants. Limited demographic information was shared to strike a balance between demonstrating variation and not jeopardizing anonymity or disclosing identities given the small population from which was sampled.

3.10. Reflexivity

I am a 30-year old male and identify as coloured. I completed my professional bachelor's degree in Psychology which equipped me with counselling skills. I was able to draw on these micro-skills and clinical interviewing skills to establish warm and professional relationships with participants. Participants felt at ease and I was able to receive expansive responses. I felt that the responses provided a clear picture of the experiences that participants had.

I am currently registered for my Masters in Psychology at the University of the Western Cape. Completing this research was interesting, as the topic was relevant to my own experience

of completing my thesis. It felt to me that it was important not to relate too much to the participants in this study, although their experience and insight felt related to my own circumstances. My circumstances were, however, similar to those of the participants which felt as though it made it easier for participants to feel comfortable speaking to me. It was not an appropriate context for me to share too much of my own experience, though the implicit similarity helped to establish trust between myself and participants.

It took quite some time to complete the data collection owing to disruptions on campus as a result of protest action termed as the "fees must fall" movement. During the process of completing my thesis, I also got married and moved into a new house and eventually emigrated, all of which delayed the completion of my thesis. My completion felt like an intermittent process as a result of these disruptions. I feel that I was able to immerse myself in the data once data collection was completed. I also feel that it was fortunate that I was able to collect data from different cohorts because of the delay in data collection. It may have taken some time for me to engage in the process of writing my thesis and to try to make sure that it remains a coherent body of work.

Having studied with and worked with people of various backgrounds, the varied demographics of the participants did not cause any problems. I believe that I am able to understand the contexts of a wide variety of people even those from different cultural and socio economic backgrounds.

The participants in this study were in the process of completing the professional degree in research psychology (M.A. Res Psych) as compared to my Masters by thesis (M.A. Psych). As a result, it was interesting for me to find out more about this process. Again, the challenge that this presented for me was to avoid being side tracked by what was interesting to me personally as

compared to what was relevant to the research that I was conducting. I had also interacted with many of the participants prior to their participation in this research. Establishing rapport and having open conversations with the participants was relatively easy and I feel that this helped me to get rich data from the interviews that were conducted. Having conducted and transcribed the interviews myself I also felt that I was very familiar with the data once I began data analysis.

Commented [WU1]: Either expand this or integrate it into previous paragraphs. A sentence cannot be a paragraph.

3.11 Ethics

Ethics clearance (HS/16/5/38) and project registration was obtained from the Humanities and Social Sciences Research Ethics Committee of UWC (Appendix B). Permission to conduct the study at the identified university was requested from the Registrar (Appendix C). Potential participants received an information sheet regarding the current study, as well as an invitation to participate (Appendix D). The information sheet included; the rights and responsibilities of researchers and participants, what participation entails and recourse in the result of satisfaction. Interested students completed a consent form in which they confirmed their willingness to participate and gave permission to make an audio recording of the interview (Appendix E). Participation was voluntary and participants could withdraw at any time without fear of negative consequence or loss of perceived benefits. One participant chose to withdraw and therefore there was no data collected from this participant. Access to the data collected from participants was closely controlled and limited strictly to the researcher and his supervisor. This was achieved by deleting the audio recordings from the recording device as soon as they had been transferred onto my laptop and emptying the recycling bin. Each recording was transferred on the same day as the interview. The audio files as well as the transcriptions were then kept in a password protected folder. Participants were informed that the information learned from the study would be

disseminated in the form of an unpublished thesis and a conference presentation. As the total population from which the sample was drawn was quite small, care was taken in the demographic information and any other information that was reported about the participants so as not to violate their anonymity.

The identity of the university was identified in the write up of the thesis. Care was taken not to cause third party reputational harm. Any form of dissemination flowing out of the present study will be presented to the Registrar of UWC. The Register will provide approval of the inclusion of identifying information about the institution before publication. Similarly, the Registrar will advise on any information that would need to be redacted.

The supervisor was awarded a Thuthuka grant in the rating track which included scholarships for human capacitation. I was nominated and approved for a human capacitation scholarship. The material assistance of the National Research Foundation as the administrators of this funding instrument must appropriately be acknowledged as agreed upon in the conditions of grant (Appendix F). The funding does not represent the views of the NRF and the funding did not influence the research. A copy of the thesis must be submitted to the NRF upon awarding of the degree. Thus, ethically I must uphold the conditions agreed to when accepting the grant.

CHAPTER FOUR

RESULTS

4.1 Outcome Space

The outcome space consists of three distinct categories. Each category reflects the variation in student experiences, in terms of developing a research identity. The three categories are presented in table # below.

Table #

Categories	**Sub-themes**
Researcher identity as a learning outcome	Familiarity with the construct, researcher identity
	Manifestations of the construct
	Latent content of the construct
Development of research competency	Technical skills
	Critical review skills
	Conceptualising research
	Dissemination
Motivators for continued engagement with research	Collegial relationships
	Awareness of societal issues
	Personal characteristics
	Desire for recognition

Category 1: Research identity as a learning outcome. Initially, all participants were perplexed by the concept of research identity. Before they were able to reflect on research identity as a learning outcome, they needed to take a moment to reflect on the meaning of researcher identity as it was not something that any of them had considered explicitly before. The

interviewer did not provide definitions or clarity on the construct of researcher identity, beyond encouraging participants to share what they understood by the term. After a period of reflection, participants identified various areas in which they felt a researcher identity was developed throughout the course. Some of these elements were more practical in nature, while others were internal. The three themes were, 1) Familiarity with the construct, researcher identity, 2) Manifestations of the construct, and 3) Latent content of the construct.

Theme 1.1: Familiarity with the construct, researcher identity. As mentioned before, all participants were taken aback by the question asked by the interviewer "what is researcher identity?" The responses from participants reflected uncertainty and it appeared no one in the sample previously thought about the concept of a researcher identity.

"What do you mean by researcher identity?" (A)

"Um hmmm… developing a researcher identity? I never really thought about it like that, to be honest." (T)

"I don't know."(L)

One participant stated outright that it had not been an explicit learning outcome in this course.

"Developing a research identity? ... it's the first time I'm hearing of it now with you, speaking about it, so I haven't really thought of it or anything like that." F

Theme 1.2. Manifest indicators of the construct. Some participants described researcher identity in terms of practical skills. These skills included experience using different methodologies, ability to tackle social issues, specialisation in specific methods, as well as the

practical role of conducting research in your career or life. Participants also spoke about the researcher identity as something which is developed through experience.

> *"I think it means... how are you able to implement skills, completion, ability to understand." L*

The participants emphasised the developmental nature of gaining experience and competence in practical skills that in turn consolidates a researcher identity.

> *"Researcher identity is the way that the student develops in the course from beginning to the end. His experience with the practical and theoretical work relating to research." K*

Participant F explained that it was important to gain a broad range of experiences and exposure before an identity can crystallise.

> *"I mean I just started so it's important for me to like experience different types of methodologies." F*

One participant reflected on research identity in relation to dealing with social issues. For this participant, identity was linked to the concept of 'social scientist' and this term was used, where the term 'researcher identity was not.

> *"When I do enter the field I will be a social scientist. So I will look at social issues and look at different ways of tackling social issues especially in our country to make things better. I would be a social scientist." A*

This theme reflects the feeling of participants that the researcher identity manifested in a number of ways. For example, through skills and competencies. The thematic content also

suggested that the acquisition of these skills and competencies was developmental and cumulative. Moreover, the range of exposure and experiences was an important precursor to the crystallisation of a researcher identity.

The findings here suggest that another manifestation of the identity was in the area of application. Reference was made to the identity of a social scientists who possesses the ability to conduct research. This encompasses all the practical skills as well as an understanding of the theory. These skills are developed through experience and the end goal is to be able to use these skills to deal with social issues. In other words, participants engaged with the notion of an identity through the practical operations and areas of application. What they described here were the manifest actions associated with being a researcher.

Theme 1.3. Latent content of the construct. Some participants used the term 'researcher identity' to refer to the way they thought about research in relation to themselves. Participants also spoke about it in terms of identifying with a particular topic or research approach.

> *"Um… I think I understand it as… researcher identity for me is how you identify as a researcher, which is kind of just repeating what you already said, but um sort of the way you think about yourself in terms of research um and also the way you think about research… I suppose the role research plays um in your life or in your career."* **N.**

The quote above illustrates the participant reflecting on research in personal terms and how the self is viewed in relation to research. The participant also mentions that researcher identity pertains to the role that research plays in your life or career, but does not elaborate on that idea. The quote below also speaks to the importance of where you find or situate yourself in research, but this participant goes on to specifically relate researcher identity to topic or interest.

"Like your researcher identity is where you find yourself in research. Like for me, my focus or interest would be more substance abuse, but it's moving more towards family." **F**

In the quote below, the participant links identity to philosophy of science. In this instance, the participant conceptualizes qualitative research as a paradigm and identified in that manner as a qualitative researcher (identity).

"I haven't [thought about researcher identity] but I feel like my identity would be more like a qualitative researcher… that's where I'm at at this stage in my life." **T**

One participant was uncertain of how to describe a researcher identity but went on to speak about it in terms of having a comfortable space or a safe space.

"That's a really deep question. I haven't found a safe space or a comfortable space yet, or what am I most comfortable working with." F

From the responses above it is clear that researcher identity is a multi-faceted construct. It encompasses the way the researchers feel about research, the role that research plays in the researcher's life, the research focus or niche area of interest, the research approach to philosophy of science. All of which impacts the researcher's understanding of the research they are conducting.

The concept of 'researcher identity' seemed to be unfamiliar to participants. All of them responded initially with confusion and were unsure what I meant by that term. For most participants, it seems research identity was an implicit, rather than explicit learning outcome. Participants may also have been working with an implicit theory of this construct, which would be consistent with inability or difficulty in articulating their understanding. Although unfamiliar

with the term, all participants were able to comment on their understanding of it. When they did provide descriptions, most of them spoke directly about their experience within the programme. Some linked their identity development to their practical experience or their desire to work in the field, others linked it to their feelings toward various aspects of the program, and some spoke to both. Overall, this category illustrates an array of perspectives on researcher identity, albeit those perspectives are more implicit than explicit and is conceptualized in terms of both manifest actions and latent content. In the following category, category 2, the manifest actions or practical skills referred to here as being components of researcher identity are unpacked and discussed in more detail.

Category 2: Development of research competency. Participants shared perceptions of their own research competency across four areas. These were 1) technical skills, 2) critical review skills, 3) conceptualisation skills, and 4) dissemination of research. These skills were discussed by participants in relation to their understanding of researcher identity and are linked to the manifest actions discussed under the first category. The themes are presented below, along with illustrative quotes.

Theme 2.1. Technical skills. All participants used strong/ expressive language to emphasize that they had gained many technical skills during this course. Examples can be seen in the quotes below.

"There are a lot of skills that I have learned in this course." K

"I've gained a lot of technical skills." N

"I think very strongly because we doing a Master's degree, and it's a research degree so a very strong emphasis [on research]." F

Participants identified data collection and data analytic skills that they gained during the programme.

"Have learned a lot of technical skills. Quantitative techniques and methods... Excel, SPSS etc." L

"We were actually exposed to doing analysis, going out to do data collection, we wrote it up so we were very active… not only theory based, but actual practical." F

"with regard to quantitative work for example, um we've done a lot of practical stuff there. Um… for our Skills project we've had to do the data collection and analysis which was quantitative… and in our quantitative classes we've had a lot of practical kind of experience. So I feel like I've gained a fair amount of skills in that area." N

When talking about the skills they gained, most participants spoke about data collection and analysis. Participants spoke to specific quantitative analysis skills they learnt. In contrast, a number of participants spoke about how they had not learned practical skills, in terms of qualitative methods of data collection and analysis. These quotes are shown below.

"We didn't do any practical qualitative work. I have more information about quantitative than qualitative skills" K

"There were no mock interviews for qualitative skills, presentations were helpful. There was a lot of theory." L

One participant acquired qualitative data analysis skills through the thesis component of the degree, rather than the coursework component.

> *"I feel like I've gained a lot of knowledge, but not necessarily skills. So like I know a lot of um qualitative data analysis techniques for example. I know thematic analysis I understand it, I've read about it, I know discourse analysis, I know… you know, all of those things. But I…I don't necessarily know how to do them. I know theoretically how to do them, I've read the steps, but I haven't actually been shown how to do it, or I haven't had the opportunity to practice doing it. So I don't feel like that is a skill that I can say that I have." N*

This participant also reflected that expectations of skills competencies would be different for student researchers than for intern researchers. The participant feels the expectations of a student researcher are more lenient that those for intern.

> *"I have to do thematic analysis for my thesis, so I feel like I can do that, um because I am a student and I don't feel like it's expected that it's perfect. But next year, as an intern, I don't feel like I would step forward." N*

Participant N differentiated between knowledge and skill, and went on to place that in the context of expectations. This suggests that developing an identity as a researcher goes beyond theory or knowledge and requires one to feel they have the necessary skills to perform the job. Moreover, one has to have a level of confidence in said skills to take up opportunities within the context of work and work-integrated learning (internship) and to identify yourself in ways that suggest you have mastered the associated skills. This implies that when you identify as competent in those skills, you will be expected to produce commensurate work.

Participants also identified scientific writing as an important skill that they acquired in their training. The following quotation from Participant A illustrates this well making linkages between writing conventions relative to methodology or forms of enquiry and output formats.

> *"The course has taught me that you can't write the same way when using different methodology and the course has taught us to write in manuscript format. In the past we would write up to 100 pages but now our writing is more concise and to the point." A*

Overall, participants felt they had gained technical skills in terms of academic writing skills as well as practical quantitative data collection and data analysis skills. Specifically, they felt they gained skills in using quantitative data analysis software. Participants also felt they gained skills in terms of qualitative theory, but did not feel they were exposed to qualitative practical skills. Participants seemed to be reflecting on their skills in relation to having the confidence to be able to do the work of a researcher and meet the expectations of employers and colleagues. Their responses reflect the areas in which they feel comfortable doing this as well as areas where they do not believe they would be able to perform as professionals or interns. What emerges clearly is that the identification as a researcher was very much linked to competencies.

Theme 2.2. Critical review skills. This is a skill which none of the participants spoke about until they were prompted. Based on participant responses, critical review skills were developed, through the coursework, in relation to reading, writing, and interpreting the value of quantitative data and findings. It was also developed through the thesis component for one student. Others felt that this is not a skill which can be taught and one felt that there is a danger of becoming overly critical. In terms of reading, one participant felt that a greater awareness of self was gained which enabled more critical reading and encouraged the consultation of multiple sources of information.

"Um being more aware of yourself definitely does help with the reading as well. I find that it's easier for me now to spot um inconsistencies, and also I find that I question a lot more what I'm reading. And because of that, then consult many more sources, um, ja, to get a better picture of what's happening." N

The quote above suggests that having better critical review skills, encourages students to consult more sources to gain an accurate or comprehensive understanding of a particular topic. Aside from reading, participants also found that they were more inclined to be critical of their own writing, considering aspects such as relevance of information and flow of ideas.

"we're taught to be critical in our readings from undergrad but definitely from Honours. But, we're never really taught to be that critical of what we say, whereas this year a lot of emphasis has been placed on… thinking about why you're saying something, it is necessary? Does it belong there? And does the thread flow through from beginning to end?" N

One participant spoke about how critical review skills were developed more through the thesis component than through the coursework.

"My research is a systematic review. I have become competent in terms of critical review skills. I have developed a lot in this area throughout the year. If I had to apply that skill I would be able to. Mostly part of my own thesis, but also through coursework." L

The quote above suggests that while critical review skills were developed through the coursework, having to constantly apply it in the thesis lead to a feeling of competency and

confidence in the ability to apply this skill. One participant spoke about critical review skills in relation to quantitative instruments.

> *"Yes definitely! Especially learning about reliability and validity and things like that, and how you do it and when you read articles you're like ok, this isn't such a great scale because the instrument that they used here, the cronbach alpha was low." T*

This participant understood critical review skills as the ability to assess the quality of a quantitative measure, both in terms of ensuring reliability and validity when using scales and when assessing the scales used by others.

Some participants felt that critical review skills were not developed much in the programme.

> *"I am very critical and I do consult other literature or what other people say and not just my own feelings or assumptions. The building blocks were there, but the skill wasn't honed. When publishing everything you write is critiqued so you have to be very critical and be very sure of what you are saying." A*

> *"So I think that is something that also needs to be worked on. Because you not taught to look at something critically. Not, I don't think it's something you can really teach someone, but I think with practice, it can happen. But it can't be like, so this is how you look at something critically. That's not going to work." F*

The quote above reflects the participant's feeling that critical review skills are something which cannot be explicitly taught, but need to be honed through practice. Another participant felt that it had been made explicit, by means of the lecturer emphasizing the importance.

> *"critical review skills are something that's been emphasised throughout… that is, I feel a skill that I've developed a lot this year, because of, specifically because of the course. Um and that's because in every course… the lecturer will explicitly mention, and emphasise over and over again the importance of being critical… not only of what you're reading, but also of what you're saying." N*

Another participant also mentioned that the skill had been developed, but was reticent when it came to providing further comment or reflection.

> *"I am critical of my own work. I have learned some critical review skills but I don't have much to say about this." K*

For one participant who felt critical review skills had not been developed, workshops were recommended as a means of providing students with an opportunity to practice critical review skills, along with an opportunity for feedback and growth.

> *"I think having like one workshop a month. Like set aside two hours where you now teaching them first, ok this is what it is to be critical and whatever and then in that workshop or in the next workshop you start, where it's assessed. Not only assessed, but you keeping track like is there growth? So you can see how far you've come." F*

One participant felt the skill had been developed, but discussed the danger of becoming overly critical and the need to maintain awareness of that.

"This course definitely makes you, sort of very sceptical of everything. Um and I think it's a good thing, um, but actually it can be a bad thing. Like the other day, in class, we were having a lecture and he asked a question and we were, sort of just pulling this question apart. But like, but what do you even mean about that, what does that mean? Like, if you think about it like this, if you think about it like that. And then eventually, the lecturer had to be like "whoa guys, you know, I think this is getting way too complicated now". So I think that's just an indication of how you sort of learn to not just accept anything, you learn that everything can be questioned but then you can also become overly critical and start questioning for the sake of questioning" N

There was a split feeling among participants, with some feeling that critical review skills had been developed while others feeling like this was a skill they possessed before the start of the programme. Yet others felt that critical review skills cannot be taught, but must be developed through practice. The participant responses also demonstrate that students are thinking about critical review skills in terms of reading and writing, but also in terms of applying knowledge learnt to evaluate research (e.g. measurement indices).

Theme 2.3. Conceptualising research. All participants felt that they acquired the skill of conceptualising research. Some participants felt that explicit, step-by-step guidance was provided in teaching students to conceptualise research. The quote below illustrates this.

"I think that the skill has been developed quite well. There is step-by-step guidance. The course has taught me different ways to conceptualise different kinds of research. You are better equipped to do all kinds of research." L

The quote above illustrates that the participant learnt that the conceptualisation process is shaped largely by the type of research being conducted. The quote shown below echoes the same sentiment.

> *"If you do a systematic review you have to go where the evidence takes you but if you're doing your own research it's totally different." A*

Some participants found that the experience of conceptualisation helped them to understand the reasoning behind the methodological decisions involved in a research project. The process of conceptualisation also helped participants to understand the importance of conceptualisation, and gave them a better understanding of the magnitude and complexity of the research process.

> *"Going through the whole process of your own thesis, like the research question, the objectives, why am I using this methodology instead of that? Or why am I using interviews instead of an instrument. Like, just being able to justify it. For me, before, I probably wouldn't have really known why we gonna use an instrument that's like that and why we gonna use an interview… I feel like I'm more aware of the importance of planning." T*

The quote above illustrates that conceptualisation helped the participant to become more aware of the research process as well as, becoming more mindful regarding decisions that need to be taken. The participant specifically refers to being able to justify decisions, which speaks to a certain level of personal ownership.

"There is so much more to research than I thought. I have learned that I have to consider a range of things and conceptualise before actually looking up information." K

"Because when I started and they were like, we need to conceptualise the study, I was like what the hell is conceptualise? What does that mean? I had no idea what it looks like, how it works, none of that but now I do know because we got to do it... So conceptualisation is vital, if you don't have that you wasting not only your time, but everyone else's time." F

The above quotes illustrate that participants' understanding of conceptualisation changed during the program. Participants grew in understanding of the importance of conceptualisation and, also found that the process of conceptualisation helped them to understand some of the reasoning behind methodological choices. Overall, conceptualisation was learned through practical experience.

"we have also had practical tasks where we have to conduct actual research, writing a proposal all the way to writing up the article and that has definitely changed the way that I go about conceptualising." A

"My training has helped in terms of conceptualising research. I've had a few opportunities to engage on that level. One of the opportunities was with my thesis. I got to conceptualise that with my supervisor. Um and then, also within my programme… we had to do a group project and within that had to conceptualise a project and then follow through with that project. So I do feel like, um - and in that

process we were - it was explained to us how you go about that, and we stopped at various points along the way. And it was explained to us, this is why you're doing this, this is why you need to think about this." N

The quote above illustrates that participants were exposed to conceptualisation in the coursework and the thesis component. Aside from practical experience, conceptualisation was also developed didactically through explanations from lecturers. One participant also learned that conceptualisation can sometimes involve participants.

"I do feel like I have a fairly good grasp on conceptualising the research, and also have a better idea now that sometimes the people you're going to be conducting the research with need to, or kind of have a say in conceptualising as well, which was our experience. So I also learned that conceptualisation isn't necessarily something that just happens by the researcher, but also needs to sometimes happen in correspondence with whoever is being researched." N

Overall, conceptualisation was developed through practical experience in terms of the thesis and practical component of the coursework. Participants felt that explicit guidance was provided by lecturers and supervisors in terms of developing conceptualisation skills. Participants grew in awareness of understanding the reasoning behind methodological decisions, understanding the importance of conceptualisation, and understanding that conceptualisation is not always done by the researcher alone, but can involve participants. Engaging in the process of conceptualisation helped participants to become more mindful of the research process as well as to take more ownership for decisions.

Theme 2.4. Dissemination. Most participants felt they had not been exposed to dissemination as a part of the program.

> *"It hasn't prepared me in terms of dissemination. We haven't really done that… I don't know how to contact a journal, I don't know how to structure a journal article, um so no, we haven't really been um introduced to that." N*
>
> *"Not really. We have spent more time conceptualising and implementing than disseminating. I have learned myself how to disseminate research, trying to develop this competency on my own. This was not covered in as much depth as I would like." L*

The last quote above illustrates that while dissemination was not covered in the coursework, some participants took it upon themselves to develop competency in this area. Another participant felt that although the skill of dissemination had not been taught, the importance thereof had been brought across.

> *"Um, not really how to. I feel like I know about the importance of dissemination now. I feel like whenever research is done, it should be made available to everybody, everywhere. So I feel like that is really important - and not just for academic journal articles. There's a lot of information that you can put in a normal magazine that you will find in Pick 'n Pay so I think that disseminating your findings at a community level, where everybody can understand is really important." T*

This participant highlights the importance of having an awareness of who the target audience is and the platform of dissemination most accessible to them as well as the fact that there are forms of dissemination outside of journal publications. There was one participant who felt that the program had placed an emphasis on imparting dissemination skills.

"We spoke about it. Emphasis was placed on it and yes, it has helped me. It has given me the necessary skills to also do that, to know what that looks like, to know what's needed for that." F

Overall, participants felt they gained an understanding of the importance of dissemination and an awareness that there are different platforms for dissemination, but they had not gained the practical skills to disseminate information. One participant felt this skill was gained partially. Once again, participants explicitly differentiate between theoretical knowledge and practical skill. Across various skills discussed in this category, participants made a point of mentioning when they felt they gained knowledge, but not practical skills. This might suggest that they are thinking of these skills as functions they will need to be able to perform if they are to succeed in the field of research.

Category 3: Motivating factors for continued engagement with research. Four factors were found to have a motivating effect on participants' desire for continued engagement with research. These factors included 1) collegial relationships with staff members, 2) awareness of societal issues and, in particular, a view of oneself as a potential change agent, 3) Internal factors and 4) a desire for recognition. These are presented below, with illustrative quotes.

Theme 3.1. Collegial relationships. Many of the participants spoke about the relationships with their lecturers and supervisors. Specifically, many remarked upon the fact that these relationships seemed less like student-teacher relationships, and more collegial.

"[Supervision's] been great, it wasn't very strict. It was more collegial than a student and a supervisor." L

"I feel like the supervision thing, it was, I don't know if intimate is the right word, but I feel like I got a lot of support and guidance from my supervisor. I feel like we're on a good footing, we have a good relationship." T

Having collegial relationships with lecturers and supervisors had a big impact on participants' attitudes toward research and one participant specifically links these relationships to the development of researcher identity.

"For me, the relationship with our lecturers has made a big difference. We are able to approach lecturers whenever we need advice. This helps us to develop our identity as researchers. Lecturers would always encourage us to engage more with research." K

"I feel like the lecturers treated us differently this year. Like, in the beginning of the year they told us we are not just your lecturers now, we are your colleagues. Even in class, we were encouraged to discuss more, engage more, take more ownership of whatever we were saying or doing and I think this made us feel more like researchers. Like oh ok, I'm not just a student anymore, this is gonna be my career, I'm a researcher." N

One participant also found that the passion that lecturers have toward research was contagious.

"So because like my lecturers for instance, they were passionate about what they were teaching me so I became passionate about actually doing what I want to do. It actually made me think of it in a wider spectrum. Like for me research was just research psychology, this is what you look at but now I know… it doesn't put you in a box, you can literally work with anything, with anyone which I never knew." F

Overall, there was a sense among participants that they achieved a collegial status with staff members. This enabled them to take more ownership of their work and even of the way they thought about research, or about themselves in relation to research. The passion of the lecturers was found to be an inspiring and motivating factor.

Theme 3.2. Awareness of societal issues. A few participants found that during the Masters programme, they became more aware of societal issues, as well as the scope of research psychology. The main thing that participants highlighted in this regard, was that they realized that, as researchers, they had the ability to make a difference to some of these issues.

> *"I thought that this would involve office work but I am interested in the community and the course has helped to develop my community focus. This course has made me feel like I can bring change." L*
>
> *"You realize the world is messed up. Not the world but people in the world are messed up and you realize you can make a difference, like you can inform policies and stuff with your findings and that is really important and that like gives you a bit of hope for the future so I feel like it's a very enlightening journey or process." T*

This perception of being able to help gave participants a sense of hope as well as a feeling that their work as researchers would be meaningful. Some participants spoke about societal issues in terms of access. Specifically, access to clinical psychologists. Participants felt that research psychology could have a greater impact on society by addressing issues at the group level as opposed to the individual level. Participants also felt like this was particularly relevant in the South African context.

> *"I definitely have a lot more respect for researchers now. Um, and especially… especially in a country like South Africa. I feel like research psychology is something*

that could be very helpful. Um, because, obviously most people can't afford to do one-on-one clinical, kind of, therapy. Um whereas I feel like research addresses many issues, um at the group level, and could be very helpful." N

"Initially I wanted to be a clinical psychologist but I felt that for most of the people in this country will not be able to access a clinical psychologist, so then I wanted to go into research to have a broader impact on society." A

The above quotes indicate that participants had an incomplete understanding of the scope of research psychologists. There seemed to be a perception of research psychology as an office job. Participants were pleasantly surprised to find that research could involve community work and that they could actually be change agents. This knowledge seemed to inspire participants and give them motivation to pursue research as a career. Other participants viewed research psychology as having the potential to have a broader impact on society than clinical psychology and some mentioned this as their motivation to continue with research.

Theme 3.3. Internal factors. Participants identified qualities which made them want to engage with research as well as certain characteristics which they felt made the research process easier. The factors which motivated participants were a sense of passion and purpose towards research, being friendly and outgoing, and being patient. Quotes illustrating these themes are presented below.

Participants found that having a passion for research and feeling like research gave them a purpose, made them want to pursue research in the future.

"Research in general, I'm really passionate. It's a real passion of mine and what I've learned is, research isn't something you go into as a second option. Like anything you do, there needs to be a reason for it, a passion. So I find purpose in doing research. I really love what I'm doing, I really love what I'm going into so I hope that it is something I get to pursue." T

Participants also identified characteristics that helped them with the research process.

"I was told that I'm charming, I charmed my way to get like, participants… like I'm jokey, so I would use that sometimes to like get, establish a rapport with the participants and I feel like. that's important… so I just feel like my personality helped me engage better with the participants. The other thing that helped me is that I just wanted to know more. I'm just curious." L

"I feel like I am by nature quite a patient person um, and I think that that helps, because the research process is quite um, it's quite involved, it's quite long. Um, and there are - you know, it's not a sprint, it's a marathon, so there are parts of it that take a long time, and are tedious and that you can't really see any results, you can't really see anything happening. Um but, ja, I feel like my patience helps me." N

"So my humour helps a lot and the fact that I'm friendly, but then with that, is my shyness and then fear of rejection. So those things. Because if I feel like someone is going to reject me, I don't even approach you. My fear of failure as well." F

Qualities which were perceived as helpful were humour, curiosity, friendliness and patience. The last quote above also illustrates that shyness and fear of rejection and failure could sometimes be hindering factors.

Theme 3.4. Recognition.

One participant spoke about the researcher identity as being linked to external recognition. The importance of being recognized and considered as an influence in the field of research was underscored as evidence of having achieved a researcher identity. Participant A clearly saw consistent publication as the prerequisite for such recognition.

> *"Ja in the field of research you need to be recognised and considered as an influence and to do that you have to publish." A*

Another participant did not feel that the field of research is well understood. The lack of recognition was found to be discouraging and, in a more practical way, there was the fear that this lack of understanding could affect job prospects.

> *"I feel like research is not well understood. As much as we appreciate it, most people are not aware of what research psychology really is. It can limit our work prospects as people do not understand research psychology. The lack of recognition can be discouraging. Hopefully in time more people will understand research psychology, I remain positive because this is what I love." L*

Only two participants spoke about recognition. One spoke about recognition stemming from demonstrated capacity in research as evidenced by publications. The other spoke about the lack of understanding of the field of research psychology and how that could hamper or limit career opportunities.

CHAPTER FIVE

DISCUSSION

The present study aimed to explore the subjective experience of developing an identity as a researcher through Masters level studies in a professional Psychology degree programme. The present study explored the experience of Masters students in a professional degree programme that leads to registration as a research psychologist. The findings shed light on the variation and similarity of experiences amongst the participants. This chapter attempts to discuss the findings against the backdrop of the existing body of literature on the topic and the methodological aspects of the study. The chapter is structured along the objectives of the study for ease of reading and demonstrating that the research questions have been answered.

5.1 Discussion

Objective 1: The first objective was to explore the perceptions of Master's students about developing a researcher identity as a learning outcome. The results suggested that participants were unfamiliar with the concept of a researcher identity. The idea of a researcher identity was not something that the participants had explicitly thought much about. This finding resonates with the sentiments expressed in literature that the concept of researcher identity was vague and poorly defined (Epitropaki et al. 2017; Holck et al. 2016; Palmer et al. 2015; Van Lankveld et al. 2017). Furthermore, the attempts at defining the concept produced very varied definitions that contribute to the lack of familiarity and reflection on it in practice as illustrated in this sample.

From the results, it became evident that upon prompting the participants were able to think about this and started to identify aspects that they considered could constitute or contribute to a researcher identity. This suggests that they were working with an implicit notion of the concept

and therefore could not provide clear and explicit definitions or understandings. The experience of the participants in this study echoed the findings in the literature. For example, Van Lankveld et al. (2017) reported that the researcher identity concept was more implicit than explicit.

The findings indicated that the participants were not able to identify the researcher identity as a learning outcome of their programme. Even though they understood that they were eligible to register as a research psychologist, they did not identify the researcher identity as an outcome of the professional programme they were registered in. This was in contrast with research on other professional programmes where the professional identity was firmly entrenched in a clinical identity (Nolan, 2019). Some researchers and theorists argue that it is a reasonable expectation that a professional programme aimed at producing researchers should have researcher identity as an outcome. For example, Gonzalez et al (2014) posited that a researcher identity can be spoken of as an outcome, because individuals modify their existing identities during the programme as they integrate and internalise new knowledge and skills. These authors further argued that as the student moves from one identity to the next, this modification or movement can be considered an outcome. Similarly, Holley (2015) argued that there are processes of transition where the student moves from a student identity to a researcher identity. When this shift takes place, it signals the end of the student identity. Thus, the literature clearly suggests that the outcome is a feasible one that is process-based. Rayner et al (2015) suggested that researcher identity is constantly developing and changing within the individual, and therefore should not be thought of as an outcome at all, but rather as a process.

The participants in the study were in the process of completing the course work component of the programme and therefore might have been more explicitly aware of and identified with their student identity. The findings then reflect a clear identification as students.

We note the variation in the response of the participants where some identified as students and others identified as student researchers. Students may thus not be far enough along the training cycle to be able to answer this question more clearly. The results appear to reflect a developmentally appropriate lack of identification as a researcher and a relative unfamiliarity with the concept of a researcher identity. Although participants admitted that they had not thought explicitly about researcher identity prior to the study, they still went on to articulate their implicit understandings in ways that were not dissimilar to literature. Castello et al. (2020) underscored that researcher identity is an incredibly complex concept that has been used over the years by researchers with varying definitions and understandings.

Objective 2: The second objective was to explore whether there are patterned ways that students understand researcher identity.

The findings identified two ways in which participants generally spoke about researcher identity. The results suggested that researcher identity was thought of in terms of manifest skills and latent or internal factors. This finding resonated with Ross, Sinclair, Knox, Bayne and Macleod (2014) who argued that researcher identity was comprised of external components (related to skills and expertise) and internal components.

Manifest indicators: Participants spoke in terms of manifest indicators of a researcher identity, such as practical or technical skills. In this instance, participants spoke about the ability to perform the tasks required in the field as indicative of a researcher identity. They went further to say that the confidence in that ability further facilitated whether they identified as a researcher and whether they took on tasks. This finding was consistent with Ross et al. (2014) who reported that graduate students often spoke of researcher identity in terms of expertise. Specifically, if you could identify with the skill set or expertise that you saw among professional researchers, then

you could identify yourself as a researcher. The findings also suggested that participants started to identify with specific skills, methodologies and philosophies of science. For example, a qualitative researcher or a quantitative researcher. The participants did not make a distinction between technical skills, methodologies and philosophies of science. Instead they indicated in which of these they would be comfortable or reticent to cast their identification.

The findings indicate that the identified skills spanned the research process. For example, conceptualisation skills and critical reviewing skills were identified from the earlier phases of research. Methods of data collection and analysis were also identified in terms of requisite skills. This sample agreed that they acquired practical advanced quantitative skills whereas they acquired more theoretical knowledge about qualitative methods. Participants reported that their confidence in qualitative methods at a practical or execution level was not as high. Some participants identified that their practical skills were honed in the execution of their thesis requirement.

The participants identified that their knowledge would enable them to attempt dissemination, but felt that these skills were not taught explicitly or practically in the programme. The findings suggest that despite their varying levels of confidence, they identified skills across the span of a research process. The understanding of research as a process emerged as an implicit skill that contributes to the development of a researcher identity. The findings are consistent with the literature. For example, Guerin (2013) argued that skills development precedes identity formation. Similarly, Thompson et al. (2016) reported that skills are developed first and it is through the action of performing those skills, that researcher identity is formed.

Latent indicators: Participants also spoke about researcher identity by referring to latent or internal constructs. The findings identified the importance of reflection on the experience of

gaining or acquiring research skills. Participants reflected on how particular activities contributed to their learning and how other activities were insufficient. Through this reflexive stance, the participants gained valuable insights and consolidated both their knowledge and emerging identities. For example, they developed a sense of what they liked and disliked. Participants discussed their research interests and related this to their emerging identities as researchers. What emerged from the findings was that the subjective experiences and subsequent reflections were an important part of developing an identity, in addition to the physical skills acquisition. This finding was consistent with Castello, McAlpine, Sala-Bubare, Inouye and Skakni, (2020) who stated that it was important to examine how individuals understand and interpret skills acquisition and practical experiences. Alexander et al. (2014) argued that self-reflection was an important factor in researcher identity development. Similarly, Buss, Zambo, Zambo and Williams (2014) reported that reflection and critical thinking were integral to identity development.

The findings indicated that the participants were thinking about themselves in relation to research as well as the role research plays or will play in their lives. For example, the participants reflected on their views about preferred paradigms or philosophy of science and started to refer to themselves in relation to those positions. This finding was consistent with the literature. For example, Ross et al (2014) reported that an important aspect of developing a researcher identity was when students attempt to situate themselves in the field of research. They do this by thinking of themselves in relation to the research process and reflecting on their own views and feelings toward various aspects of research. Caskey, Stevens and Yeo (2020) identified that the development of researcher identity includes an internal element wherein the student starts to

relate to aspects of the research process. They found that researcher identity goes beyond external, practical skills.

The findings suggested that the ability to act and control various aspects of their unfolding research career trajectories was an internal aspect of developing a researcher identity. For example, one participant took initiative to independently learn about dissemination and submitting to a journal. In this example, the student demonstrated agency as an internal resource to seek out the skills she thought were important. Another participant described how she would not be comfortable to take on certain types of research when on internship as she felt underprepared. Though this initially presented as a confidence issue, the participant demonstrated reflexivity, insight and sufficient ego capacity to observe the boundaries or limits of her skills set. Both examples reflect the notion of personal agency. It illustrated the role of personal agency in the development of a researcher identity as reported by Ross et al (2014).

Objective 3: The current study also aimed to look at barriers and facilitators to developing a researcher identity at three levels namely, a structural level, supervisory experiences and at an individual level.

A. Structural barriers and facilitators

At a structural level, the programme appeared to help the participants hone the skills required to be effective researchers, without explicitly helping the participants shape a researcher identity. The programme provided knowledge and skills training, practical experiences in some areas, and opportunities to go through the full process or stages of a research project. All of these opportunities acted as facilitators and made skills acquisition and transferable skills possible. According to our earlier results and literature, this is the precursor for identity development and a

component of the researcher identity. Being able to better engage with academic staff, at least for some of the participants, also helped them deepen their interest in and enthusiasm for research.

The disproportionate focus on quantitative skills at the expense of qualitative skills, the emphasis on philosophy and theory of qualitative methods at the expense of practical qualitative skills, lack of explicit training in dissemination and the lack of explicit facilitation of a researcher identity all can act as barriers at a programme level. On a program level there are key skill areas which helped participants identify their strengths and weaknesses as researchers. However, none of the participants appeared to have synthesised these into a sense of identity.

B. Barriers and facilitators within supervision

Being able to form meaningful relationships with their supervisor helped participants gain a deeper understanding of what research is and what researchers do. Participants reported that being more involved in decision making and discussions during supervision gave them a better understanding of how methodological decisions are made, as well as a sense of agency at being a part of their own research process. This is consistent with Caskey et al. (2020) who found that in the beginning of a supervisory relationship, students viewed the supervisor as an expert in the field with a level of knowledge that seemed unattainable. However, after spending some time engaging in supervision sessions, the perceptions of some students changed. Supervisors were simply people doing a job that they too could see themselves doing one day, with the right guidance. Cotterall (2015) also found that relationships with supervisors or other professionals in the field of research played a role in shaping the student's view of their own researcher identity. Similarly, Rockinson-Szapkiw et al. (2017) found the development of researcher identity to be the combined result of personal agency and the influence of mentors.

C. *Individual barriers and Facilitators*

Individually, the participants were able to recognise characteristics that would be helpful for them in research, namely curiosity, humour, conviviality and patience. There were also some aspects of their personality that participants viewed as hindrances, such as shyness and fear of rejection. These characteristics were mainly discussed in relation to particular skills. For example, shyness and fear of rejection were viewed as characteristics that could hinder the data collection process if it involved human interaction. Curiosity was discussed as a quality which might make someone suitable for a career in research as research was viewed to involve some aspect of seeking new knowledge. Some participants also seemed to be driven on an individual level to stand out in their chosen field and be recognised as researchers.

5.2 Conclusion

The current study was initiated in response to the academic climate in South Africa. Based on the current trends there will not be enough career academics to meet the goals set forth by the National Development Plan 2030. In the past decade there has been a decline in the number of full-time researchers, while close to half of existing academic staff in tertiary institutions in South Africa are nearing retirement age. It would appear that the low or slow rate of postgraduate completion is based on factors outside of ability. The current study particularly focused on the concept of researcher identity and how it is perceived by postgraduate students in a professional Masters programme in Research Psychology.

The current study recognised that there was a gap in the existing literature about the development of an identity as a researcher. Full-time researchers exhibit a specific skillset as part of their profession. Learning these skills and by extension taking on the identity of a researcher

has been linked to participation in particular academic activities by research. Understanding the influence of personal factors, the discipline being studied as well as institutional culture was considered important in the current study. Postgraduate research is at the intersection of many contexts, including the discipline, the college or institution itself, and the instructors' and supervisors' perspectives.

The current study is located within the framework of phenomenography. This framework was helpful in contextualising students' individual experiences of similar events. Specifically, the framework was helpful in highlighting variation in responses. The study included semi structured interviews. A purposive sample of six students in professional Research Masters Programmes was used. Data was analysed using phenomenographic analysis.

Three main categories emerged from the data analysis. These were; researcher identity development as a learning outcome, development of research competency, and motivators for continued engagement with research. With regards to researcher identity as a learning outcome, it was noted that students were not very familiar with the construct. Despite not being familiar with the construct, they were able to speak about manifestations of the construct researcher identity, which participants suggested were linked to one's ability to carry out the tasks associated with research. In terms of development for research competency, there were patterned ways in which participants understood the research process. There was consensus among the participants about the skills that one would need to develop to become a competent researcher. Motivators for continued engagement included collegial relationships with academic staff in the department as well as personal characteristics that would be helpful to them within the field of research, for example curiosity, conviviality, and patience. The findings of the current study were consistent with prevailing views in the literature.

5.3. Limitations of the study

The study included a relatively small sample. Although the choice of philosophical framework allows for and encourages smaller samples, having a slightly larger sample may have allowed for more variation in the findings. Additionally, participants were all in the first year of Master's study. Although this was a methodological choice, I acknowledge that this may have limited the findings. It was clear from the results that participants had not thought explicitly about researcher identity and were relatively unfamiliar with the concept. Literature reciprocated that this unfamiliarity is not uncommon and may be developmentally appropriate. Participants in this study may not have been far enough along the training cycle to be able to reflect more clearly on the concept of researcher identity. In this way, not having any interns or graduates as participants in the study, may have limited the findings. On the contrary, this choice enabled me to gain a sense of the variation within the coursework component. Not all students proceed with internship and thus the experiences in the first year would provide meaningful insights. It is acknowledged that the findings are then limited to this first leg of the training and degree components.

Data collection for the current study took place partly during the student protests. This made gaining access to participants more difficult than it may otherwise have been, particularly in relation to finding safe spaces to conduct interviews. At times it was not possible to access campus and interviews had to be conducted off campus. Many participants did not feel comfortable with the idea of being interviewed in their homes and so a neutral location had to be found and agreed upon. Some participants also then struggled with transport to the agreed upon location. These factors all delayed the process and resulted in data collection taking longer than it may otherwise have taken. Due to the fact that some interviews had to be conducted in public

places, the setting was not always as quiet as would be ideal. This meant that there was some background noise in the recordings, which made transcribing challenging. That said, there were only one or two words in interviews that were inaudible and overall, I do not believe this impacted understanding or the data analysis process.

5.4 Recommendations for further study

The results of the current study reflect findings from one institution. It may be beneficial to explore the perceptions of students enrolled in professional research Masters programs across South Africa. Given the fact that the structure and content of these programs is largely developed at an institutional level, it may be useful to get a sense of researcher identity of students at other institutions. A Quantitative study could perhaps compare experiences across institutions. Future research could also look into whether differences across programs, in terms of content or structure, have any bearing on the development of researcher identity.

This study was limited by the inclusion of only first year Masters students. Future research on this topic, including interns and graduates, might be useful in terms of offering perspective on how researcher identity develops over time, as students move further along in the training process and even post training.

I would also recommend that a similar study be conducted to gain the perspectives of lecturers and supervisors involved in the professional research Master's programme. Both to find out how they view researcher identity as being a part of their own identities, as well as how they view their role in terms of helping students develop their researcher identities.

5.5 Significance of the study

The findings of this study highlight participants' awareness and understanding of the concept of researcher identity. The study showed that researcher identity is not something that the participants gave much thought to before this study, at least not explicitly. The data collection stage of this study seemed to provide a space for participants to reflect on this concept in a more considered and experientially grounded manner. This proved useful in terms of highlighting areas of the Master's course that they felt were adding to the formation of that identity, as well as areas they felt were not being addressed or developed through the course. Specifically, the study demonstrated that supervision, and in particular the relationship with the supervisor, played a role in the development of researcher identity. Collegial relationships with lecturers in general also added to the development of researcher identity. The study also showed that participants viewed the development of technical and research related skills to have an influence on their identities. Specifically, the current study found that quantitative skills and critical review skills were being well developed. There could however be a larger emphasis placed on practical qualitative skills as well as dissemination skills. The findings of this study may be beneficial to course co-ordinators in terms of highlighting content or areas the participants felt aided the development of their researcher identities, as well as areas that they felt need improvement. Understanding the perceived importance of collegial relationships with lecturers as well as relationships with supervisors may be useful in terms of informing faculty training and teaching and learning practices. The fact that participants were able to reflect during the data collection stage of this study, suggests that it might be beneficial to introduce reflexive spaces or include more opportunities for intentional reflection on researcher identity in the course.

One of the goals of the National Development Plan for 2030 is to address the shortage of academics and the need for an increase in academic and public sector research personnel. The findings of this study provide some insight into how students enrolled in a professional Master's research psychology program, view themselves in relation to research. Despite the fact that this is a professional research program, none of the participants had thought explicitly about their own researcher identities prior to this study. The study provided an opportunity for participants to reflect on what researcher identity means to them, which could in and of itself be useful in achieving this goal. Additionally, the findings can be used to inform professional training programs at other institutions as well as internship sites. Internships sites can use the potential gaps highlighted in this study to assist in designing their internship programs. The findings of the study can also be used to further future research on researcher identity and contribute to the knowledge economy which may aid in achieving the goal set forth by the National Development Plan 2030.

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Appendix A – Interview Schedule

Within your degree programme, how much emphasis is placed on research?

How do you understand the term "research identity"?

What is your perception of developing research identity as a learning outcome?

To what extent do you think your degree programme has facilitated the development of research competency, as it relates to:

- Technical skills
- Critical review skills
- Continued engagement with research
- Conceptualising research
- Disseminating research

How do you feel about the research components of your degree programme?

How do you imagine your degree programme influences your perception of research and your engagement in the research process?

How do you think your particular programme has influenced your perception of research?

Describe your experience of supervision.

Which aspects of your personality do you feel helped or hindered the research process? In what ways?

APPENDIX B – Ethics Clearance

OFFICE OF THE DIRECTOR: RESEARCH
RESEARCH AND INNOVATION DIVISION

UNIVERSITY of the WESTERN CAPE

Private Bag X17, Bellville 7535
South Africa
T: +27 21 959 2988/2948
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E: research-ethics@uwc.ac.za
www.uwc.ac.za

22 November 2016

Mr G Sobotker
Psychology
Faculty of Community and Health Sciences

Ethics Reference Number: HS/16/5/38

Project Title: Psychology Masters students' perceptions of developing identities as researchers.

Approval Period: 29 July 2016 – 29 July 2017

I hereby certify that the Humanities and Social Science Research Ethics Committee of the University of the Western Cape approved the methodology and ethics of the above mentioned research project.

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval. Please remember to submit a progress report in good time for annual renewal.

The Committee must be informed of any serious adverse event and/or termination of the study.

Ms Patricia Josias
Research Ethics Committee Officer
University of the Western Cape

PROVISIONAL REC NUMBER - 130416-049

FROM HOPE TO ACTION THROUGH KNOWLEDGE.

Appendix C: Information sheet

UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa

Tel: (021) 959-2283, Fax : (021) 959-3515

E-mail: gsobotker@gmail.com

Project Title: Psychology Masters students' perceptions of developing identities as researchers.

What is this study about?

This is a research project being conducted by Grant Sobotker and Dr. Mario Smith at the University of the Western Cape. We are inviting you to participate in this research project because you are completing a Master's degree in Psychology.

What will I be asked to do if I agree to participate?

You will be asked to participate in a semi-structured interview at a time most convenient for you. Interviews will be conducted at a neutral venue that is agreed upon by both the participants and the researcher. The approximate duration of the interview will be 60 minutes.

Would my participation in this study be kept confidential?

The researchers undertake to protect your identity and the nature of your contribution. To ensure your anonymity, *your name will not be included on data collected. A code will be placed on the collected data.* To ensure your confidentiality, locked *storage areas will used to store information, using identification codes only on data forms, and using password-protected computer files.* If we write a report or article about this research project, your identity will be protected.

This research project involves making audio-recordings of your interview. The audio-recordings will be transcribed in order to look for common themes arising from various interviews. To ensure your confidentiality, the audio-recordings, interview notes and transcribed interview will be kept in a safe location with access only available to the researcher. Electronic data will be stored using password-protected computer files.

The researcher will protect your identity in all formats that findings will be distributed including

- An unpublished thesis
- A conference presentation
- A manuscript submitted for publication

What are the risks of this research?

All human interactions and talking about self or others carry some amount of risks. During this study there is a possibility that your reflections on your Master's studies might stir up emotions that could require containment. We will nevertheless attempt to minimise such risks and act promptly to assist you if you experience any discomfort, psychological or otherwise during the process of your participation in this study. Where necessary, an appropriate referral will be made to a suitable professional for further assistance or intervention.

What are the benefits of this research?

This research is not designed to help you personally, but the results may help the researcher learn more about the experiences of students who complete their Masters in Psychology. We hope that, in the future, other people might benefit from this study through improved understanding of the experiences of Masters students at the institution. A direct benefit for you is that you will be able to reflect on your experiences as a Masters student up to now as those experiences pertain to research.

Do I have to be in this research and may I stop participating at any time?

Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you

decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify.

What if I have questions?

This research is being conducted by Grant Sobotker at the University of the Western Cape. If you have any questions about the research study itself, please contact:

Researcher:

Grant Sobotker

0795522070, gsobotker@gmail.com

Research supervisor:

Dr. Mario Smith

Dept of Psychology, UWC

021-9592283/ 0823309284, mrsmith@uwc.ac.za

Head of Department:

Dr. Michelle Andipatin

Dept of Psychology, UWC

021-9592283, mandipatin@uwc.ac.za

Dean of the Faculty of Community and Health Sciences:

Prof José Frantz, University of the Western Cape, Private Bag X17, Bellville 7535

chs-deansoffice@uwc.ac.za

APPENDIX D – Permission to conduct the study

UNIVERSITY *of the* WESTERN CAPE

DEPARTMENT OF PSYCHOLOGY

Private Bag X 17, Bellville 7535, South Africa, Telephone: (021) 959-2283/2453
Fax: (021) 959-3515 Telex: 52 6661

The Registrar
Student Administration
UWC
Private Bag X17
Bellville, 7535
24 August 2016

Re: Permission to conduct research at the University of the Western Cape.

I am currently registered as a student in the M. A. Psychology (Thesis) degree programme at UWC. I have to complete a research project/ thesis in fulfilment of the degree requirements. The proposed study entitled, "Psychology Masters students' perceptions of developing identities as researchers" has been granted ethics clearance from the Senate Research Committee. The study includes recent graduates and Psychology Masters students registered at UWC. The study aims to explore the subjective experience of developing an identity as a researcher through Masters level studies in Psychology. The study is being supervised by Dr. Mario R. Smith who is co-signing this letter to request permission to conduct the study with Psychology Masters students and graduates at UWC. I wish to apply for permission to conduct my Masters level study at UWC.

The study has been designed to include qualitative methods. Students will be invited to participate in a semi-structured interview on campus. The standard protocol for ethics recommended by UWC will be adhered to and all data will be properly anonymized including the identity of the institution, students and their supervisors. There are no risks anticipated in participating in this research project.

The benefits of participating include

- An opportunity to reflect on your experiences of conducting supervised research as a Masters student.
- An opportunity to reflect on how the experiences of conducting supervised research have impacted the development of an identity as a researcher.
- Future students and supervisors might benefit from this study through improved understanding of the developmental processes and identification that takes place during supervised research.

In terms of the Protection of Personal Information Act (PoPI), I understand that I will not be able to have direct access to the contact details of the students/ graduates. Our proposal is that my supervisor distributes an e-mail in which he introduces me and the study to the potential participants and invites them to participate in the study at UWC. Thus interested students will be able to contact me. My supervisor will have access to the contact details of the target group for the study. Find attached a copy of the proposal, ethics clearance certificate and proof of registration.

We hope that this application will be met with your favourable approval. Please do not hesitate to contact my supervisor or myself if you require additional information. Please note that my supervisor will be travelling abroad from 25 August to 7 September 2016 and he will be contactable via e-mail.

Thanking you in anticipation.

Mr. Grant Sobotker
Student # 3048295
gsobotker@gmail.com
0795522070

Dr. Mario R. Smith
Supervisor
mrsmith@uwc.ac.za
0823309284/ Office X2283

Appendix E - Consent form

UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa

Tel: (021) 959-2283, Fax : (021) 959-3515

E-mail: gsobotker@gmail.com

Title of Research Project: Psychology Masters students' perceptions of developing researcher identities

The study has been described to me in language that I understand. My questions about the study have been answered. I understand what my participation will involve and I agree to participate of my own choice and free will. I understand that my identity will not be disclosed to anyone. I understand that I may withdraw from the study at any time without giving a reason and without fear of negative consequences or loss of benefits.

I agree for this interview to be audio-taped.

I also agree to the dissemination protocol outlined in the information sheet

Participant's name……..

Participant's signature…….

Date……

Appendix F: Grant conditions